PCM-5823

NS Geode with Dual Ethernet, Audio, and VGA/LCD

Labels in diagram:
PC/104 Interface — LCD connector — AC97 Audio Interface — Parallel port — Fan connector — Infrared transceiver — CompactFlash™ (on solder side) — Keyboard/mouse — COM2 — COM1 — Power/HDD LED (on solder side) — Reset — FDD interface — CRT display — Ethernet (1ˢᵗLAN) — Ethernet (2ⁿᵈLAN) — 2x USB — NS Geode™ processor — SO DIMM (on solder side) — Intel™ or Realtek LAN chip — Power connector
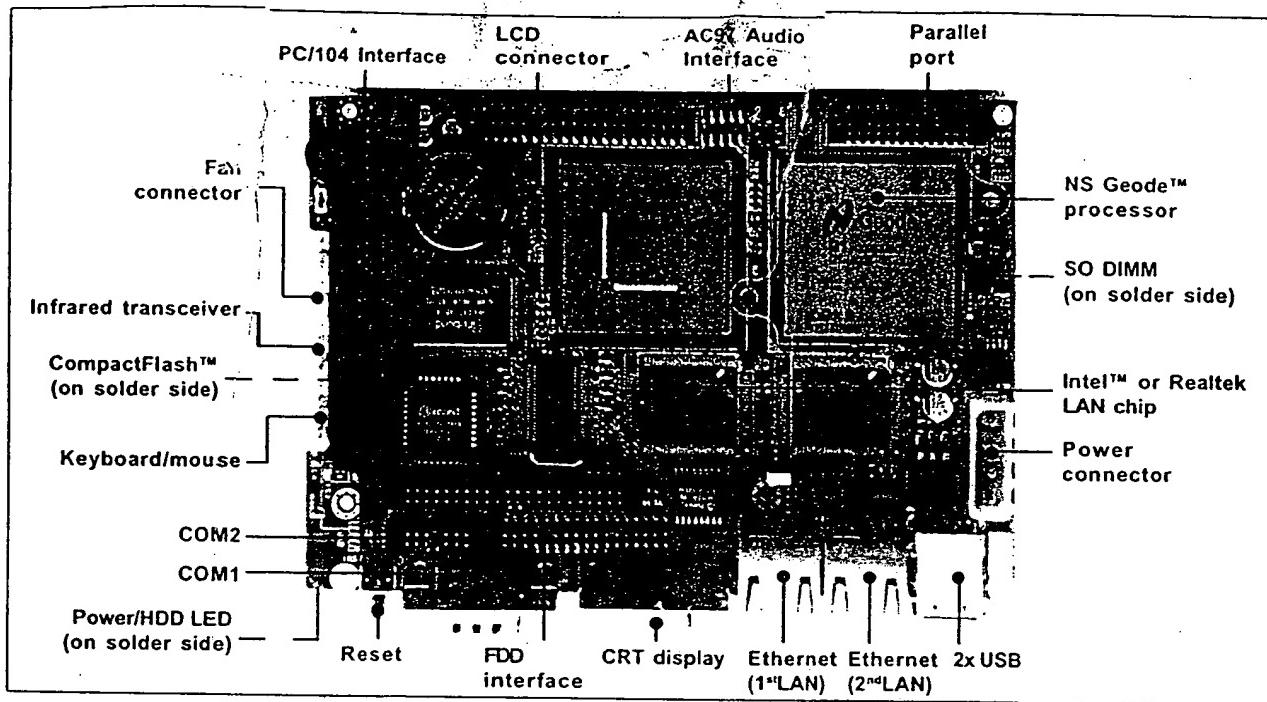
Introduction

Advantech's new PCM-5823 NS Geode Series is a 3.5" SBC which offers an onboard NS Geode GX1-300 processor or GXLV-200 processor, plus support for dual ethernet for network functions such as Firewall, Router or Gateway functions. Other onboard features include VGA/LCD, a CompactFlash™ card socket, and watchdog timer. With the 586-level NS Geode processor mounted directly on board, upgrade and system configuration is much more convenient as is the benefits of fanless operation in temperatures up to 60° C (140° F). This board is a feature-packed, 586-level, hassle-free solution for space critical applications.

Dual-Ethernet Flexibility

The flexible, dual Ethernet capability of the PCM-5823 gives network administrators another tool to deal with today's changing application needs. The board comes with the top-of-the-line Intel 82559E LAN chips or cost-effective RTL 8139C LAN chips, depending on users needs. Used as a DMZ device, the PCM-5823 could act as a firewall that sits between the internet and a company's internal network. This applies to Web (HTTP) servers, FTP servers, SMTP (e-mail) servers or DNS servers. The PCM-5823 can also be used as an internet-network gateway (router) that connects a number of local networks. Once again, the dual ethernet capability and processing power of the PCM-5823 gives it the ability to perform these functions. The compact size, low power consumption and fanless operation also allow it to be used "exactly" where you need it as well.

Features

- Onboard NS GX1-300 MHz CPU or GXLV-200 MHz CPU
- Dual Ethernet On board
- Provides AC97 Audio interface (optional)
- Single +5 V power supply
- ISA-bus expansion with on-board PC/104 connector
- **Compact size:** 145 x 102 mm fits in the space of a 3½ " HDD

Specifications

- **CPU:**
  Onboard NS GX1-300 processor or Onboard GXLV-200 processor
- **BIOS:** AWARD 256 KB Flash memory
- **Chipset:** NS CX5530
- **System memory:** One 144-pin SO DIMM socket accepts up to 128 MB SDRAM
- **Enhanced IDE interface:** Supports up to two EIDE devices. BIOS auto-detect, PIO Mode 3 or Mode 4 transfer, Ultra DMA33 mode (ATA-4) up to 33 MB/sec
- **FDD interface:** Supports up to two FDDs
- **Serial ports:** One serial RS-232 port, one serial RS-232/422/485 port
- **Watchdog timer:** Software enable/disable intervals at 1.6 seconds

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Specifications cont.

- **Parallel port:** One parallel port, supports SPP/EPP/ECP mode
- **Keyboard/mouse connector:** Mini-DIN connector supports standard PC/AT keyboard and PS/2 mouse
- **USB interface:** Two USB ports connectors on the front side
- **Infrared port:** Supports up to 115 Kbps transmitting rate
- **Power management:** APM 1.1 compliant power management
- **PC/104 expansion:** 104-pin 16-bit PC/104 module connector

Flat Panel/VGA Interface

- **Chipset:** NS CX5530
- **Display memory:** 1 ~ 4 MB shared with system memory
- **Display type:** Simultaneously supports both CRT and 18-bit TFT LCD displays (supports 3.3 V LCD)
- **Resolution:**
  - Non-interlaced CRT monitor resolution up to 1024 x 768 @ 16 bpp or 1280 x 1024 @ 8 bpp
  - Panel resolutions up to 1024 x 768 @ 18 bpp TFT panel

Solid State Disk

- Supports one 50-pin socket for CompactFlash card

Ethernet Interface

- **Chipset:** Intel 82559 for the PCM-5823-G0A1 only or the RealTek™ RTL 8139 chip for the PCM-5823-D0A1 only
- **Ethernet Interface:** PCI 10/100 Mbps Ethernet, IEEE 802.3U protocol compatible
- **Connection:** 2 RJ-45 connectors with LED on the frontside

Audio Function (optional)

- **Chipset:** NS CX5530
- **Interface:** Supports AC97 interface for optional audio module

Mechanical and environmental

- **Power requirements:**

  Maximum: 5 V @ 4 A (4.75 ~ 5.25 V)
  Typical: +5 V @ 1.5 A (for GX1-300 and GXLV-200)

- **Dimensions:** 145 mm x 102 mm (5.7" x 4")
- **Weight:** 0.77 kg (1.70 lbs) (weight of total package)
- **Power supply voltage:** +5 V (4.75 ~ 5.25 V)
- **Operating temperature:** 0 ~ 60° C (32 ~ 140° F)

Ordering Information

☐ **PCM-5823-D0A1**

NS Geode SBC with GXLV-200 CPU, VGA/LCD and dual RTL Ethernet

☐ **PCM-5823-G0A1**

Same as PCM-5823 but with GX1-300 CPU and dual Intel Ethernet

☐ **PCD-100A-0004/0008/0016/0032/0048/0064/0096/0128**

CompactFlash card with 4/8/16/32/48/64/96/128 MB memory capacity

☐ **9689000065**

32 MB SDRAM SODIMM

☐ **9689000061**

64 MB SDRAM SODIMM